

the cases, the approach was via a vertical incision overlying the common femoral artery. Reconstruction for critical limb ischemia was needed in 16 cases (32%) and amputation in 7 cases (14%). Median post-operative ABI was 0.41 (range 0.23-0.70) while 30 day median ABI improved to 0.64 (range 0.26-0.93). Claudication on follow up or ischemic rest pain was documented in 23 cases (46%).

Conclusions: Simple ligation of the femoral artery and debridement of the necrotic tissue is an effective first line therapy for treatment of IFAP. This is tolerated by most patients particularly if the femoral bifurcation is preserved. Reconstruction should be reserved for those with acute limb ischemia following the ligation. Endovascular balloon occlusion of the ipsilateral external iliac artery is an effective minimally invasive technique of obtaining proximal vascular control of infected pseudoaneurysms.

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PS158.

Blunt Aortic Injury Does Not Warrant Emergent Repair

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Objectives: Blunt aortic injury (BAI) has been traditionally treated as an emergency. The mortality for early repair has been reported up to 30-40%. Delayed repair has shown better outcome. This study is a single center review in the management of BAI where early repair <48 hr. was compared to delayed >48 hr.

Methods: BAI admitted at a tertiary hospital over a 8-year period (2004-2011). The patients were divided in to early repair vs. delayed repair. Outcome variables included survival, injury severity score (ISS), ICU and hospital length of stay.

Results: A total of 26 patients (male=22; mean age 42 ± 16.3 yr.) presented with a BAI on CTA. There were no deaths from blunt aortic injury or repair. No difference was found between ISS, survival or non-vascular procedures between groups. The mean BAI grade was 3.0 in the early group and 2.9 in the delayed group. Mean follow up (months) was 46.2 for early group and 30.4 ± 27.3 (mean \pm STDEV). Three patients with intimal flaps (Grade-I) were managed non-operatively and were successfully discharged. One patient underwent open repair in the early group (n=12). In this group there was one death from non-vascular injuries despite endograft repair. There were no deaths in the delayed group (n=11). The time from arrival to surgery was 23.5 ± 32 days

(range 2-91). Two patients underwent endograft repair electively after serial CT scans. One patient in the early group had an endograft collapse due to bird beak. A second endograft had to be placed to salvage the first, 17 days later. In the early group one patient had a traumatic aortic dissection which was urgently repaired for hemorrhage in the chest.

Conclusions: Patients with blunt aortic injuries that survive, may not require emergent repair. Delayed repair of BAI may be preferred in selected patients with serial imaging and aggressive negative inotropic therapy. Long term follow up is warranted and may be difficult to achieve this this population.

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PS160.

Treatment of Blunt Traumatic Aortoiliac Injury: A Single Institution Experience

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Objectives: Blunt traumatic aortoiliac injury (BTAII) is unusual due to its protected location. When it does occur, BTAII is associated with extensive intraperitoneal injuries. Optimal management is unclear since few cases are reported in the modern literature. The purpose of this study is to evaluate our experience in management of BTAII.

Methods: A review of a prospectively maintained database revealed 304 aortic injuries in 55,876 trauma admissions (0.03%) between Jan 2001 and Nov 2011. Among these, 15 patients had BTAII and comprise the study group.

Results: Of the 15 patients with BTAII, 11 were male and the median age was 47 years (range 5-80). Four patients (27%) died after arrival to the hospital. Two patients (13%) with traumatic dissections without intraabdominal injury were medically managed. Thirteen (87%) patients required exploratory laparotomy; and 12 (80%) required repair of bowel injuries. Two patients died in the operating room, only one of whom died as a result of aortic injury. Two other patients died later as a result of multi-organ failure. Six patients (40%) required aortoiliac repair or revascularization: primary aortic repair (n=2), in situ aortoiliac prosthetic bypass (n=2), iliac artery bypass with autogenous vein (n=1) and iliac thrombectomy with femorofemoral bypass (n=1). All patients with aortoiliac repair

or revascularization also had concomitant bowel injuries and all survived to hospital discharge. All repairs were patent and no patient with prosthetic graft had evidence of graft infection in follow-up (mean 26 months, range 5-80).

Conclusions: BTAII is rare and associated with moderate in-hospital mortality, usually due to associated injuries. Survival after aortoiliac repair is excellent. Revascularization with prosthetic graft appears safe despite concomitant bowel injuries.

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PS162.

Racial Differences in Treatment and Mortality following Vascular Injury: A National Trauma Data Bank Analysis

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Objectives: We sought to evaluate the impact of race on mortality and treatment approaches in vascular trauma.

Methods: We performed a retrospective review of adult patients with traumatic vascular injury in the National Trauma Data Bank (2002-2009) based on ICD-9 codes. We categorized patients by race (white, black, or Hispanic) and identified open vascular and endovascular procedures by CPT codes. Primary outcome was in-hospital mortality.

Results: Among the 25,638 cases of vascular injury, 32% of the patients were black and 18% were Hispanic. Fifty-eight percent were penetrating injuries. Injury severity score was similar across racial groups. Black and Hispanic patients were more likely to sustain penetrating injuries (81% and 67%, respectively) compared to white patients (40%, $P < .001$). Black patients had the highest in-hospital mortality after both blunt and penetrating injuries (22%; 19%) as compared to Hispanic patients (18%; 16%) and white patients (11%, $P < .001$; 16%, $P = .005$). After adjusting for demographics, injury characteristics, insurance status, and procedure type, Black race remained associated with higher mortality compared to white race in blunt (OR 1.45, 95% CI 1.17, 1.81, $P < .001$) and penetrating (OR 1.53, 95% CI 1.25, 1.88, $P < .0001$) injuries. Over the study period, we observed a trend of increasing endovascular and decreasing open surgical treatment of blunt injuries that was similar across racial groups. In penetrating trauma, overall open surgical procedures were less

frequent and endovascular repair more frequent in black patients.

Conclusions: Black patients have worse outcomes and increased risk of mortality after vascular trauma. Racial differences were not fully attributable to differences in injury type, severity, insurance status or treatment strategies. Trends in endovascular therapy for blunt vascular trauma are similar across racial groups. Further studies are needed to optimize therapeutic approaches to reduce racial disparities in vascular trauma.

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C9j: Poster Session - Vascular Laboratory and Imaging; Renal/Visceral Disease

PS164.

Estimating The Risk of Leukemia in Patients Undergoing Routine CT scans For Post Operative Surveillance after Endovascular Aneurysm Repair(POS-EVAR)

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Objectives: Low-linear energy transfer (LET) radiation exposure (RE) from frequent CT scans increases risk of acquiring a new cancer. We used a model (BEIR VII) given by national research council for estimating life time risk of leukemia due to CT scans performed for POS-EVAR.

Methods: We estimated excess relative risk (ERR) of Leukemia due to RE from CT scans for POS-EVAR using BEIR VII committee's preferred model: $ERR(D, s, e, t) = \beta_s D (1 + \theta D) \exp[\gamma e^* + \delta \log(t/25) + \varphi e^* \log(t/25)]$ {D is dose in sieverts (Sv), s is sex, and e^* is $(e - 30)/10$ for $e < 30$ and 0 for $e \geq 30$ (e is age at RE in years), t (time since RE)}. As in table ERR's & relative risk reduction were calculated for various models. The risk was stratified into age groups, gender & radiation doses per CT scan (15 or 31 mSv). Paired t-test was used for analysis.

Results: Cumulative ERR for Leukemia from radiation was higher in those exposed to contrast CT (0.73, $P < .0001$), females (0.76), young patients with highest in the 50-55 age group (ERR=1.17) and lowest in the octogenarians and older (ERR=0.36). Table shows significant difference between the ERR/RRR of leukemia in those patients who would obtain surveillance CTs at all time points v/s those when an alternative modalities used at some time points ($P < .0001$).